

Theft! at Skule™

by Neil Brewster
ENG SCI COMP 9T8
and Kern Lewin
ENG SCI COMP 9T7



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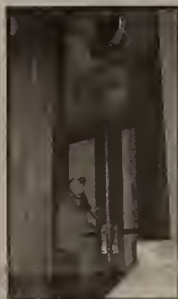
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A series of thefts around Engineering in the last few weeks has brought attention to an ongoing problem on campus. In the Executive Council meeting on Thursday, reports of thefts were made by several clubs. Ranging from pool balls stolen from three common rooms to a significant quantity of cash stolen from the Engineering Athletics Association, this series of thefts has caused serious concern among engineering students. While it is true that the buildings are open to the public all day long, it seems most likely that these acts are being perpetrated by students of our own faculty. What this amounts to is that students are stealing from themselves; the EAA money was for new jerseys and came from the Engineering Society which means that ultimately it came from the student body. Plus, thefts of this sort hurt everyone. For

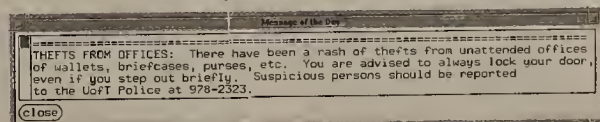


example, there was an "honour" bar in the Eng Sci common room that provided cheap food but which, due to theft has been forced to cut back. And common room pool tables become a liability if people keep taking the balls; if clubs decide that they can no longer afford to maintain such equipment, then we ALL lose.

What can we do about this problem? Well, the main thing is to be aware of it. Be wary of leaving rooms unlocked, or valuables unattended. Especially now, during exams, when everybody is stressed out, people are less likely to take the precautions necessary to discourage theft. The other thing is, make sure that the campus police are aware of what is happening. If something goes missing, report it immediately; they can't help if they're kept in the dark. Also, you may have noticed the general message from ECF (see inset). The police need to know about any suspicious activity, or people who seem to be in places that they shouldn't be. It's a lot easier for

everyone if we can prevent a theft, rather than trying to track down a thief after the fact.

So be careful, and be aware that unfortunate (and foolish) as it is, the campus is not a secure environment. We need everyone's help to ensure that a few thieves don't totally ruin the benefits and the atmosphere of our faculty. So if you have any information that might be helpful, please contact the campus police at 978-2323.

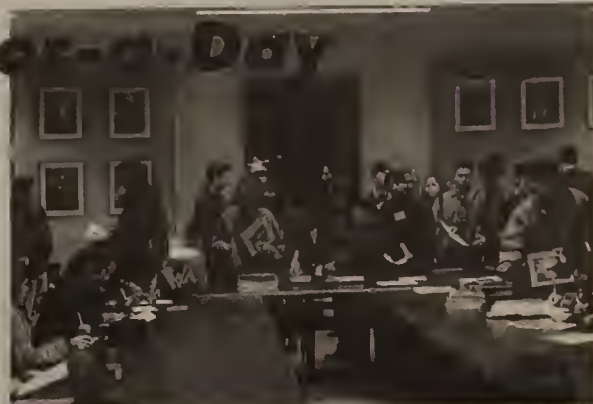


F!rosh-for-a-Day

by Dan Popadynec CIV 9T8

F!rosh-for-a-Day ran two successful sessions for high school students on Friday, November 15th and Friday, November 22nd. The success of this year's event was the product of dedication, hard work and enthusiasm of its chair, Vera Kan. Frosh-for-a-Day 9T6, sponsored by the High Skule™ Liaison Committee and the Faculty Office, brought over 400 high school students (a.k.a. pre-F!rosh) to the university to explore engineering and the University of Toronto.

During the morning registration, pre-F!rosh were entertained in MC102 by a Mr. Bean video. The morning seminar consisted of an inspiring talk by Professor Susan McCahan (Mech) and a highly insightful look into engineering by Professor Zvonko Vranesic (Eng Sci). A two hour lab session followed, as pre-F!rosh got a feel for the various disciplines of engineer-



ing. Danny Kuchma introduced the Civil lab, Sonia Pettioni, with the help of Rashna Agarwall and Nadine Robinson, showed various aspects of Chemical Engineering, Professor Leslie Sinclair hosted the Mechanical lab, and some grad students hosted the Materials and

Environmental labs. Of special interest were two labs organized entirely by undergrads: the Biomedical Lab, run by Becky Smith and the Sunrayce Solar Car lab, run by Dan Foisy and Kevin Quan. Should the pre-F!rosh who participated in the Sunrayce lab come to U of T for engineering next fall, it is hoped that they have been inspired to join the Sunrayce "Blue Sky" team.

After the labs, it was on to lunch where pre-F!rosh enjoyed one of U of T's delicacies, Cora's Pizza. This was followed by entertainment provided by the LGMB! Denise Ho and her staff were responsible

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Skule™ Nite sums up your Christmas
Integral-o-grams...The spirit of giving
(over a range of friends)

On sale, Nov 25-29, 1996

EDITOR
Albert Lee

ASSISTANT EDITOR
Karen Virk

LAYOUT EDITOR
Xavier Galvez

GRAPHIC ARTS MANAGER
Stanis Yu

PHOTOGRAPHY
Calton Chung
Margaret Cyrzan

LAYOUT AND GRAPHICS
Julian Dunn, Elfreda Lau, Vincent Tang, Calum Tsang, Stanis Yu, Mae Yuen

CONTRIBUTORS
Neil Brewster, Michael Carnarda, Jacqueline Chan, James Drysdale, Julian Dunn, Teresa Huang, Franny Jewett, Vera Kan, Ilan Kelman, Kern Lewin, Ryan Morris, Lucy Pegoraro, Dan Popadynec, Steve Rouatt, Gina Seto, Carole Song, Luke Stras, Calum Tsang, Vincent Valeriano, Shantanu Verma, Aldona Wiacek, Stanis Yu

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Christian Bosio

ADS MANAGERS
Paul Andersen
Christen Taylor

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PLEASE NOTE

THE CANNON is a medium through which undergraduate engineering students can express their opinions. The views expressed herein are those of the author and do not necessarily represent those of the editors of the Engineering Society unless so indicated.

CORRESPONDENCE The Cannon

Editor-In-Chief
10 King's College Road
Sandford Fleming Building
Rm. B670
Toronto, Ontario M5S 1A1
Tel: (416) 978-5377
Fax: (416) 978-1245
e-mail: cannon@skule.ca

Editorials

Winners Never Cheat?

by Karen Virk ELEC 9T9

What would our world be like if we had no rules to break? One could argue that we all have rules for a reason. They are there to protect society from the chaotic upheaval that would ensue if we allowed everyone total freedom and this is necessary. We need to be governed in order to progress. Are these rules governed by morals or the need to keep order? Are they really rules if no one believes or follows them?

The other day I was on my way to dinner with a few friends and without even thinking, after checking for cars I crossed the street; we happened to be at traffic lights at the time. To me, jaywalking at a red light was no different from the other multitude of times I've jaywalked; but to my friends, there was a distinct difference. For some reason, jaywalking at a traffic light with a red light in front of you made the act wrong. So naturally we lightly touched on why this was so. To me it seemed extraordinarily hypocritical. In either case, jaywalking is illegal and I saw no reason why that could not be accepted. This incident started me thinking on other cases in which I've regarded a glaring yet universally accepted hypocrisy. I had to look no further than our own hallowed halls of engineering, or better yet, our classrooms.

To almost all engineers, cheating is wrong. There can be no justification for cheating on an exam or stealing someone's project yet "referencing" problem sets and "collaborating" on assignments is somehow different. It is most certainly not acceptable to cheat but the distinction of what cheating is seems to have been lost. All around us it has become common to cheat and sooner or later we forget that what we are doing is ultimately wrong. The fact that it is done by so many others lends to the belief that we are invulnerable to the consequences of our actions because it has been so conveniently justified for us. Indeed it has come to the point that people can ask, is copying a problem

set cheating? The line between cheating and not is a very distinct one; it does not blur depending on circumstances. If one does choose to cheat, even in an apparently insignificant way, I find it imperative that they know and acknowledge it for what it is.

Once we concede that it does happen, we must ask ourselves why. For many, it is a matter of survival. On many an occasion it has been stated that if you do not cheat to some extent, you will fail. For the most part this is true. Without question, it is impossible to do all the work given and without doing so, you will not do well. Perhaps it is more important to say that you will not do relatively well. If your class is all getting that extra edge, it is virtually impossible to get by without it. You must either accept it or be left behind with only your morals and no P. Eng. The only way to be completely fair is ensure no one cheats, or allow everyone to cheat.

What happens when we get out into the real world? Is it acceptable out there among the knowledgeable echelons of society? Supposedly not or perhaps just better hidden. We wear the iron ring as a symbol of professionalism but it is rarely questioned by what means we attained it.

But the circumstances surrounding the question is irrelevant. I'm sure it would be possible to find individuals that have never cheated, but what is important is that all who do so realize what it is they are doing. Ultimately it is a choice and you must choose it with your eyes wide open and accepting of all the consequences that accompany that decision. There is nothing wrong with making your own choices and your reasons for doing so are your own, but in any case you must acknowledge your actions. Despite any apparent justification for cheating, everyone who does so must realize the magnitude of their actions.

"To thine own self be true."

Cannon Announcements

Layout Staff Needed

The Cannon is looking for people interested in working on the Layout Staff. Roles include manual and computer layout, graphic design and manipulation, and copy editing. No experience is necessary.

If you're interested, e-mail Albert at cannon@skule.ca. We will be having a meeting during the winter break.

STANLAND by Stanis Yu ENV CHEM 9T9



Can a Bank Change?

Albert Lee COMP 9T9

Greed - One of the seven deadly sins.

Can you ever have enough?
Is there a limit to how much you want?
How far would you go?

Greed lends itself to abuse. Money is an easy target.

In our society, money has been given god-like status.

It is worshipped by many, it can grant the ability to destroy and create, and in a pinch,

it can grant wishes. But its power is limited by how much you have.

The more, the merrier, or so they say.

Money as the central element of a society is destructive.

Does money come before family, morality or the well-being of others?

What are your priorities? Will money buy happiness?

The Bank is a god; it is the manipulator of money.

Want to protect it, want to invest in, want to get a large sum of it now?

Talk to them; they have money; they want to help.

For a price.

The Bank is an integral component of our society.

We can manage our money in hopes of keeping what we have or if by chance, gaining more. It is all in the hands of the Bank.

That is sad.

Why? The Bank is not a neutral party.

It too, wants money. It will cross all barriers to get it.

Witness the ATM, witness the job cuts, witness the over-costed fees for their services.

Were they made to better society or just to better itself?

Is the Bank really a god, isn't it just like us?

Perhaps, but to an extreme; the Bank is a greedy god.

Money is embedded in our society.

Be it silver, paper, or plastic, it will not go away.

Can the Bank ever change?

Not likely. Its goals are the same as ours only with an extremist at the wheel.

The Bank is embedded in our society.

Until money disappears, the Bank will be there, waiting.

And it knows, it'll see you soon.

Opinions

Lest We Forget...

For the first time since I began my studies in Eng Sci, I am ashamed to admit to being a member of the Faculty of Applied Science and Engineering. This stems not from Orientation controversies or academic reasons, but for the students' failure to observe a moment of silence on the eleventh minute, of the eleventh hour, of the eleventh day, of the eleventh month... yes... it was *Remembrance Day* a few days ago. This "forgetfulness", or better yet, this "negligence", is a blatant act of disrespect not only to those who gave their lives, but to those who fought and lived to tell their stories.

Tell me, how many of you did in fact observe a moment of silence that day? Who of you purchased a poppy and actually contemplated on its significance, not only as a coat accessory for the day, but what it actually symbolized? Who of you said a prayer to your God in mourning for the dead and thanksgiving for their sacrifice? Have you ever shaken the hand of a veteran and said a simple "Thank You"? If you can truthfully answer any of these questions, I apologize for including you with the "mindless masses". To the others, you are simply "ungrateful brats".

Have you in your university career, ever wandered to the west wing of Hart House? Yes... where the bell tower is. What is carved in stone under that bell tower? Names... those are names of University of Toronto students who traveled to foreign lands many years ago and never came back home. These young men and women were not much older, if not younger than you and I. Can you imagine yourself knee-deep in mud, cold, tired, thousands of miles away home, with the knowledge that death awaits you on the other side of that trench? I ask you, can you imagine? No you can't. That is what those young men and women fought for... so you can live your days without the need to even think if you will live to see another sunrise. Hence, it is our responsibility as citizens of this country and as human beings to acknowledge their sacrifices which enable us to live a better, peaceful life.

Some of you may disagree with the ethics of war, while others cannot even fathom the relevance of war. Granted, that is your opinion but I think we both, as human beings, can agree that these veterans at least deserve respect and remembrance. Amidst all of our lectures, problem sets, quizzes and tests, all they ask for is a moment of silence, compare that to the greater sacrifice of one's life not only of those who died, but also those who survived. For the survivors relive the images of death and destruction in their memories every night in their dreams for the rest of their lives. Think of it as an eternal nightmare...

As well, you may be under the erroneous impression that is does not apply to you if you are not a Canadian. How foolish! You probably owe more than any one else in this country. I myself am originally from the Philippines, my family emigrated to Canada nine years ago with the hopes of a better future for our family. Probably the fact that I am attending university in a country which have rights and freedoms is a testament to my family's hopes and dreams. For these I have to thank those courageous men and women who fought in those Great Wars, so that people like you and me and everyone else can enjoy and live in a somewhat better world.

You may also wonder that if their sacrifices were to create a better future, our present, then why do inhuman slaughters such as that in Zaire and the countless "little" wars in the rest of the world occur? There is only one person to blame, look in the mirror... Yes, you, including the generation before you. The famous philosopher and author George Santayana encompassed this unfortunate reality with the following words:

He who cannot remember the past is doomed to repeat it.

Indeed, we are doomed to repeat the past unless we remember the horrors of wars gone by. A society only moves forward if its people have learned from its past mistakes, otherwise, we are stagnant-ly idling in this ever expanding universe.

If Ye Break Faith

As you read this article, I would like for you to pause for a moment and think about what you were doing last week Monday (meaning Monday November 11th.) If you were like most engineering students, you were probably caught up in the hustle and bustle of changing classes, labs, assignments due, assignments to be done and more. Did you visit a war memorial that day? Did you take a minute to stop and remember?

I didn't have the opportunity to go to Hart House and attend the Remembrance Day ceremony held at 10:30 am but I did spend some time reflecting. Buying a poppy from a war veteran, I wondered what experiences he went through over fifty years ago. Here he was, an old man, selling poppies on Bloor Street on a cold day, while plenty of un-popped people walked by oblivious to his presence! And when I looked carefully at him, I tried to think of how he appeared when he was twenty or twenty-one years old and in uniform.

No longer was he stooped, tired, wrinkled and old, but blooming, strong and fresh-faced. It was when I stopped seeing the war vet as an old guy who belonged to the past, but as a young man with a future that I realized what a great sacrifice was made by the ones who didn't make it back. These old soldiers

As future engineers, we are called upon not only as leaders in industry and business but also caretakers of the next millennium, technologically, as well as socially. To fulfill the former is quite simple; we are well on our way. The latter, however, requires even more education, dedication and reflection, and the observance of *Remembrance Day* is a great step forward towards the ideals young men and women our age died for many years ago.

*Take up your quarrel with the foe:
To you from failing hands we throw
The torch; be yours to hold it high.
If ye break faith with us who die
We shall not sleep, though poppies grow
In Flanders fields.*

- John McCrae

Vincent Anthony Z. Valeriano
ENG SCI 0T0

could have been and did include Skule™mates, siblings, young parents, friends and acquaintances—and they could have been any one of you. If the war were today in 1996, I thought, I wouldn't be able to laugh to freely and enjoy your company, my Skule™mates. Instead, the halls of Skule™ would be emptier, I would probably be anxious over those who had "gone to the front," grieving for those lost and afraid for the future.

Lots of people, particularly young people, say they can't see the point of having Remembrance Day, or that they don't fully grasp what it meant to make a sacrifice. I say, look at a war veteran, that old man or woman, and try to see him or her as a young person like ourselves. And if you had forgotten last Monday, take a minute to remember now.

Vera Kan
CIV 9T9

Engineers Misunderstood

This is in reply to "non-engineer" Cecilia Natalia's letter in the Nov. 5th Cannon.

In trying to understand your criticism of our "primitive tribal ceremonies" which you so gloriously denounce as "racist" and "insulting," it occurred to me that perhaps you are missing the point. You state that, with our initiation and other activities, we are trying to cultivate an insulting attitude towards arts students. That is not our objective. We feel that having Skule™ spirit and participating in extra-scholastic activities is as important a part of Skule™ as is studying. There is more to university than books, and our activities such as Frosh week try to promote that idea. Your lack of school spirit does not necessarily reflect our own.

I agree that some of our activities may seem questionable and obnoxious, but you must take into account the incredible work load we must deal with. The accumulation of stress from this and our other academic activities occasionally needs release. We do so in a manner that not only reinforces our Skule™ spirit but is also fun and enjoyable. I cannot expect you, as an arts student, to understand the pressures we are subject to. I am not undermining the difficulty of your courses, but engineering is one of the most competitive and challenging programs at U of T.

Your argument that engineers and only engineers are the source of the rivalry between arts and engineering students is complete nonsense. Arts students quite openly propagate the competition between the two faculties. A few well-known examples include the delight arts students take in stealing engineering hard hats during Frosh week, and the various chants adopted by arts students to insult engineers. Clearly the issue of rivalry is not a one-sided coin, as you so assiduously claim.

As for the fact that arts students "have no idea" of who we are and "don't care," I seriously doubt that is the proper attitude to take. Are you saying you ignore the fact that you share U of T with one of the largest and most imminent engineering faculties in Canada? Or are you implying, with that cosmic superiority so prevalent in your attitude, that you are above (and thus better than) us lowly engineers? If it is indeed we engineers that have an inferiority complex, then it must be contagious.

James Drysdale
MECH 0T0

X-MAS SUDS

LAST CHANCE TO DRINK BEFORE EXAMS

Secret Santa's
Rum and Egg Nog
Candy

FRI. NOV. 29TH



Skule™ News

Biomedical Engineering — Chemical Stream

by Gina Selo ENG SCI 979

Biomedical Engineering is an enticing option for many students entering Engineering Science because it portrays an image of a dual expertise in two highly respected fields: engineering and medicine. It was introduced just four and a half years ago by the University of Toronto, and there is no comparable degree offered anywhere else in Canada, or strictly speaking, in the U.S. To date, two classes of sixteen and nine individuals have graduated successfully as biomedical engineers, with an electrical orientation.

Given the success of electrical biomedical engineering, the program is expanding to encompass a chemical slant. Exciting new fields, such as cellular biology, are developing rapidly, and the call for biomedical engineers with a chemical background is becoming more relevant. Professor Yu-Ling Cheng has had a role in designing the new Biomed-Chem curriculum, and looks forward to forging ahead in this area with the high quality of students that biomedical engineering has always fostered.

The new curriculum has recently been passed for a chemical based biomedical engineering option, and will be offered to the students currently enrolled in second year Engineering Science.

The chemical stream shares several core courses with the electrical biomedical stream, but diverges by incorporating fundamental chemical engineering courses

such as Thermodynamics, Environmental Chemistry, and Chemical Kinetics & Reaction Engineering in third year, and chemical-based electives in fourth year.

Rebecca Smith, a biomed 9T7, endeavoured to achieve biomed course load with a chemical orientation on her own last year. She dealt with the administration and was able to successfully put together a schedule that will earn her a Bachelor of Applied Science degree with a speciality in Biomedical-Chem. She is highly in favour of the curriculum change, and feels that this new option allows engineering science students who enjoy chemistry to have a broader choice in career paths. Currently, three of the seven options available to Engineering Science students are related to ECE (computer, electrical, and biomedical).

As it stands, most biomedical engineering graduates have three options upon the completion of their degree. They can look for a job in the industry, go on to graduate work, or apply for medical school. For chem-biomed, the industry would consist of small businesses and subdivisions of larger corporations (such as research departments); small scale, but extensive in breadth. Graduate school has a lot of research opportunities, and medical school would place them in the unique situation of being able to relate technological developments in the health industry with its practitioners.

Ontario Engineering Competition

The OEC-CIO this year is to be held February 14 to 16 at McMaster University in Hamilton. This competition allows full-time undergraduate students to compete in categories of engineering design and communications. The competition has six categories including the new Team Design category for 1st and 2nd year engineering students only. The other five categories are: Entrepreneurial Design, Corporate Design, the new Team Design, Editorial Communications, Explanatory Communications, and Parliamentary Debate.

Cash awards are presented to the top three entries in each division, and to entries deserving special recognition. The cash awards range up to \$2500 for first place in most categories. However, these are not the only benefits of competing! The weekend of the competition is an excellent opportunity to make industry contacts, express your ingenuity, and meet engineering students from across the province.

The University of Toronto has been very successful in past competitions. Last year, entrants from the University of Toronto earned a first-place award in Explanatory Communications, a second-place award in Entrepreneurial Design, a third-place award in Editorial Communications, and the Canadian Industrial Innovation Centre Award for special recognition.

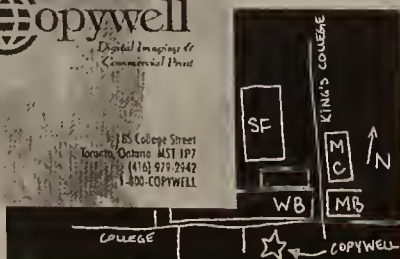
Although the competition seems a long time away, it is necessary to start your applications now before the categories fill up. The deadline for registration is January 10th, 1997. It is best to apply as early as possible. This is your chance to show your stuff!

If you would like more information about the competition, or are interested in competing, please contact Thaddeus Nettleton (nettle@ecf). You may also speak to the VP External Lucy Pegoraro, or leave a message in her mailbox in EngSoc.



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TERM 3F

Partial Differential Equations*
Transport Phenomena*
Systems and Signal Analysis 1*
Thermodynamics
Environmental Chemistry

APM384F
BME391F
ECE355F
CHE372F
CHE390F

TERM 3S

Organic Chemistry and Biochemistry*
Chemical Kinetics & Reaction Engineering
Probability and Random Processes*
Materials Design and Engineering
Economic Analysis and Decision Making*

CHE391S
CHE392S
ECE351S
MMS350S
MIE374S

TERM 4F

Thesis*
Bioelectricity*
Molecular and Cellular Biology*
Biomedical Imaging*
and one of
Advanced Reactor Design
Polymer Science and Engineering
Bioprocess Engineering
Electrochemistry

ESC4B9Y or ESC499Y
ECE445F
BME495F
BME595F
CHE412F
CHE463F
CHE466F
CHE553F

TERM 4S

Thesis*
Cellular Bioengineering*
Biomechanical Engineering*
Biomaterials and Biocompatibility*
and one of

ESC4B9Y or ESC499Y
BME496S
MIE439S
MMS452S

Innovation and Entrepreneurship for Engineers
Advanced Material Properties
Process Modelling and Simulation
Other Technical Elective

CHE457S
CHE461S
CHE507S

* Courses shared with Biomedical Option — Electrical Stream

Courses for Chemical Biomed Option

Canadian Council of Professional Engineers Scholarship Recipients For 1996

Press Release

Ottawa, November 11th 1996. The Canadian Council of Professional Engineers (CCPE) is pleased to announce the names of the 1996 recipients in three scholarship categories which make up its National Scholarship Program.

1996 CCPE / Meloche-Monnex scholarship award recipients

Mr. Stéphane P. Hoffman, P.Eng. from Hawkesbury, Ontario. Mr. Hoffman is a member of Professional Engineers of Ontario and the Ordre des ingénieurs du Québec.

Mr. Jonathan J. Lee, P.Eng. from Toronto, Ontario. Mr. Lee is a member of Professional Engineers of Ontario.

The CCPE/Meloche-Monnex scholarship awards provide financial assistance to Canadian engineers returning to university to further their studies in a field other than engineering.

1996 CCPE / Manulife Financial scholarship award recipients

Mr. David C. Dechka, P.Eng. from Calgary, Alberta. Mr. Dechka is a member of the Association of Professional Engineers, Geologists and Geoscientists of Alberta.

Mr. Nasir Ghani, P.Eng. from Dundas, Ontario. Mr. Ghani is a member of Professional Engineers of Ontario.

Ms. Susan J. Guravich, P.Eng. from Harvey Station, New Brunswick. Ms. Guravich is a member of the Association of Professional Engineers of New Brunswick.

The CCPE / Manulife Financial scholarship awards provide financial assistance to Canadian engineers returning to university to further their studies / research in a field related to engineering.

1996 CCPE / Encon Endowment scholarship award recipient

Mr. Curtis F. Berthelot, P.Eng. from Saskatoon, Saskatchewan. Mr. Berthelot is a member of the Association of Professional Engineers of Saskatchewan.

The CCPE / Encon Endowment scholarship award provides financial assistance to Canadian engineers who wish to pursue studies in the area of engineering failure investigation and / or strength of materials.

The CCPE National Awards Program aims to foster excellence in the Canadian engineering profession by encouraging engineers to pursue advanced studies.

Canadian Engineers' Awards

Since 1972, the Canadian Council of Professional Engineers (CCPE) recognizes and supports excellence in service to the engineering profession and to the community through its National Awards Program which is aimed at raising awareness about the role of engineers in Canada.

The 1996 recipients in the five categories were:

Mr. Guy Saint-Pierre, Ing. from Montréal, Québec — Gold Medal Award

Dr. Michael P. Collins, P.Eng. from Toronto, Ontario — Medal for Distinction in Engineering Education

Mr. Jean Shoiry, Ing. from Sherbrooke, Québec — The Young Engineer Achievement Award

Dr. Sami Rizkalla, P.Eng. from Winnipeg, Manitoba — Meritorious Award for Professional Service

Mr. Roger Nicolet, Ing. from Montréal, Québec — Meritorious Award for Community Service

Resident Chess Master Defeated

by Luke Stras ENG SCI 9T9



On Tuesday, November 12th, Prof. Vranesic, EngSci's resident chess master participated in the annual eng sci chess challenge. Prof. Vranesic, a professor of

Computer and Electrical Engineering, and the current head of the Division of Engineering Science, had accepted a challenge from the first and second year students to a many-against-one chess match. He offered the 18 challengers any advantage they wished, up to a rook advantage. The only winners, Larry Mak and Tomasso Magnotta, had both chosen a knight ad-

vantage. Of the people who lost or drew, five had chosen no advantage; the others had split evenly between knight and rook advantage.

The players started off very relaxed, but became very intense after about 10 moves. The first game ended after 22 moves (1:18:10), when Prof. Vranesic offered a draw to David Hum. The last game ended after 60 moves (3:01:53) when Prof. Vranesic offered a draw to Paul Leventis.

We would like to thank Prof. Vranesic, all the participants, and all the spectators for their enthusiasm.

List of Participants:

Peter Blaser (Loss), Brian Cheung (L), Mark Ebdon (L), Laslo Galambos (Draw), Eitan Grinspun (L), Yuval Grinspun (L), David Hum (D), Mike Karczmarek (L), Raymond Koo (L), Prof. Kortschot (L), Julian Kuerti, Nathan Lax (L), Paul Leventis (D), Kern Lewin (L), Martin Louis-Bright (L), Larry Mak (Win), Tommaso Magnotta (W), David Perry (L).

Galbraith Honoured

Press Release

The Faculty of Applied Science and Engineering held the Dean's Circle Reception on October 23, 1996 to honour all students in the Faculty who received an undergraduate scholarship. Approximately 110 students attended.

Each year, the Dean's Circle highlights a former Dean of the Faculty. This year,

the Faculty honoured John Anderson Galbraith, the first Dean of the Faculty. John Galbraith was Professor-in-Charge from 1878-1889, Principal from 1889-1906, and Dean from 1906-1914.

Dean Michael Charles outlined Dr. Galbraith's achievements and gave a brief history on the School of Practical Science.

Congratulations to all our scholarship recipients!



Environmental Engineering...

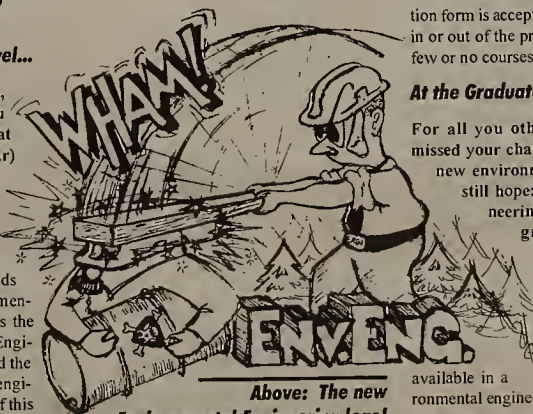
by Stanis Yu ENV CHEM 9T9

At the Undergraduate Level...

For all you F!rosh out there, here's something that you might want to think about (that is, if you make it to second year) — the environmental engineering option. The Faculty of Applied Science and Engineering has established a new environmental division in response to increasing demands on engineers to solve environmental problems. This year marks the Division of Environmental Engineering's inaugural season and the production of a new batch of engineers is under way. The goal of this newly born division is to provide engineers who choose to enroll in the option, with the abilities to prevent, assess and manage the impacts of engineering activities on the environment.

The program begins in second year and offers six core courses: Applied Ecology, Environmental Chemistry, Environmental Impact & Risk Assessment, Environmental Regulation & Policy Development, Environmental Engineering Project, and Preventive Engineering & Social Development. These six core courses are spread throughout years 2 to 4 of the students' undergraduate studies, in most cases replacing free electives.

It is important to understand that the students enrolled in the environmental engineering program are still a part of their home discipline (chemical, civil or me-



Above: The new Environmental Engineering logo!

chanical) and will graduate with a degree in their home discipline. However, they will also receive the following statement on their academic transcript:

"Completed the Collaborative Program in Environmental Engineering".

In its first year, the Division has opted to operate in a collaborative venue. Currently, the collaborating partners in the Environmental Engineering Program are the Department of Chemical Engineering and Applied Sciences, the Department of Civil Engineering, and the Department of Mechanical Engineering. There are no cutoffs or mark requirements to the program. Anyone from the aforementioned participating departments who has expressed interest in the environmental engineering program on their pre-registra-

F!rosh-for-a-Day

CONTINUED FROM PAGE 1

for ordering, organizing and serving the pizza lunch at New College's Wetmore Hall. Special thanks go to Denise, the Food Committee for both days, the BNAD, Dr. David Pelteret - Director of Administration at New College, and Mr. Paul Ellul and the caretaking staff at Wetmore Hall.

Campus tours quickly followed as the pre-F!rosh were led from New College to various locations around campus by student volunteers. Jennifer Stephenson did a great job organizing eight simultaneous tours. On this tour, the pre-F!rosh had the opportunity to tour three residences, including Innis College, hosted by Jennifer Yu with help from her roommate Christine, New College, hosted by Heather White with help from Ryan Morris, and University College, my own residence, which I hosted. A Question and Answer session hosted by Tony Sinclair, Chair of First Year Studies, followed the tours and helped answer all the questions the pre-F!rosh had.

On the Friday, November 22nd session, pre-F!rosh were invited to F!rosh SUDS. Talking with a few pre-F!rosh who attended SUDS, they were very impressed with the variety of events at SUDS, specifically the Karaoke, the dart-blowing contest and the jello eating contest.

A lot of preparation went into the making of F!rosh-for-a-Day. I would like to thank Diana Ferrari and her helpers for phoning over 500 pre-F!rosh to personally invite them to F!rosh-for-a-Day and to answer any of the questions they may have had. Their work helped improve U of T's image of being large, yet personable. Most administrative duties for the event were

taken care of by the Faculty Office. I would like to thank Professor Tony Sinclair, Deirdre Stanton, and Christine Cody for handling the initial registration, and Susan Grant in the ECE office for coordinating several labs.

Special thanks go to all the students who volunteered. They truly gave the pre-F!rosh a spirited and entertaining perspective of U of T through student eyes, and a positive outlook on Skule™. Albert Lee, Daisy Tam, Xavier Galvez, Steve Rouatt, and Kristen Hoffstein played a big role in making the event run smoothly. For those who helped out but I have not yet mentioned, my apologies and thanks go out to you.



Engineering Society E-Mail Directory

(Revised: November 22nd, 1996)

Organization	E-Mail [@skule.ca]
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Executive

President	president
V.P. External	vpexternal
V.P. Finance	vpfinance
V.P. Activities	vpactivities
V.P. Internal	vpinternal

Club Chairs

Civ Club	civclub
Geo Club	geoclub
Mech Club	mechclub
Indy Club	indyclub
Eng Sci Club	engsciclub
MMS Club	mmsclub
Comp Club	compclub

Appointed Positions

1st Yr. Committee	firstyear
4th Yr. Committee	fourthyear
Blue and Gold	bluegold
Social Co.	social
Employment	employment
High School	highschool
Communications	engcom
EAA	eaa
EFCR	efcr
Prof. Dev.	profdev
Women's Issues	womens-issues
PEY Co.	peyclub
Stores Manager	stores
Advertisements	adsmanger
Suds	suds
Archivist	archivist
L.G.M.B.	lgmb or bnad
Skule Nite	skulenite or nite
Toke	toke
Cannon	cannon
Yearbook	skulebook
Handbook	handbook
Comp. Sys. Admin	sysadmin
Project Magazine	project-magazine
Speaker	speaker
Gratitude 9T7	gratitude
CESA	cesa
Home Page	digital

Other General Mailboxes

Eng Soc (general)	engsoc
Alumni Office	alumni
Arts Club	artsclub
Blue Sky Project	bluesky
ESSCO	essco
SkuleDaze	skuledaze

The Club Reports

ECE Club

by Michael Camarda ELEC 977

The Electrical and Computer Engineering Club held its annual Dinner Dance on November 16, at the Clarion Essex Hotel. The event was a great success with the support of all groups of ECE students, from 977 to 0T0, and Mr. Dmitrevsky displayed his fancy footwork to the amazement of all in attendance, showing

how a real Engineer takes control of the dance floor.

The first issue of "Short Circuit" (the official newsletter of ECE) was released with info on work opportunities overseas, the traditional Third Year Ottawa trip, and famous quotations from a particular class in third year Elec. Everyone is encouraged to submit articles, announcements, jokes, cartoons, art, suggestions, ... anything that is of interest to the student body of ECE. All submissions can be submitted directly to the ECE Club Office (SF640).

Environmental Club

by Shantanu Verma ENV CHEM 979

First and foremost, congratulations go out to Stanis Yu for designing the winning Environmental Engineering Logo! Stanis will receive a sweatshirt for his efforts. His logo will be painted on the wall of the new enviro common room (and possibly on t-shirts in the near future). A preview of the new logo can be seen on page 5.

The Enviro Club, at the moment, is only a small committee composed of a handful

of Enviro dedicated to decorating the new enviro common room. The Enviro Club is planning to decorate the common room during the Christmas break. If anyone is interested in helping out should send e-mail to Stanis at:

yustani@ecf.utoronto.ca.

Club Chairs,
Please submit your reports for
the January Issue of The Cannon.

IEEE Club News

by Jacqueline Chan COMP 978

If you're a comp or elec, you should be a member of IEEE. IEEE, the Institute of Electrical and Electronics Engineering, is the world's largest professional society. It has over 320,000 members in electrical, electronics and

The U of T student branch has a few hundreds of members. Our goal is to let you keep in touch with the latest trends in industry by organizing seminars and forums. Some advantages of becoming a member include:

- 1) A free subscription to IEEE's award-winning magazine, *Spectrum*. The IEEE publishes nearly 25% of the world's technical papers in electrical, electronics and computer engineering.
- 2) Huge discounts on many IEEE-exclusive books and publications.
- 3) Access to our own executive office in the basement of the Sandford Fleming Building.

New members are always welcome. The yearly membership fee is only \$30 U.S.. For more info, please visit us in SFB580 or e-mail to ieee@ecf

T-Shirt Design Competition

We are in the process of getting a new T-shirt for our members and are holding a competition for a design of the T-shirt.

The Rules: Submit a black and white drawing. The logo must contain the letters IEEE in capitals, and the quotation "University of Toronto Student Branch".

Tips: Your design should reflect some aspect of electrical and computer engineering.

The deadline: Submit to the IEEE mailbox (SFB580) by December 6, 1996.

The reward: If your design is chosen, you receive a free IEEE student branch membership and a free T-shirt with your design on it!

For more details, contact Ray Chang at changra@ecf

President's Report

by Franny Jewett CIV 977



I have been collecting a large amount of data for the internal assessment of the Engineering Society and some of the statistics are quite surprising. The following information was

gathered from the incoming student surveys which the class of 977 and 978 completed when registering for U of T Engineering. The results of the surveys in the two years were virtually identical (every answer was within a few percent), so I will interpret these results as being approximately applicable to all of our undergraduate classes.

Over 50% of incoming engineering students did not have a single alcoholic drink in the year before attending univer-

sity and only 10% of the students drank frequently during that year.

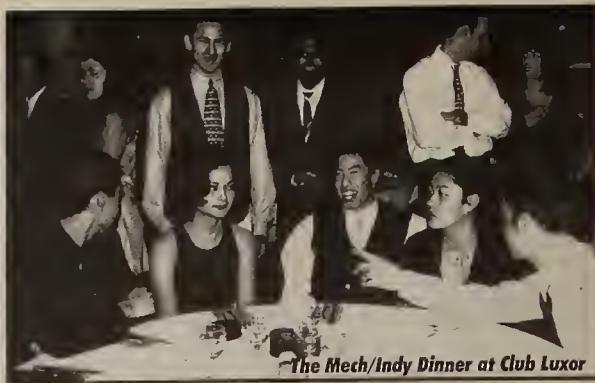
Over 20% of our first year students are under 19 in Sept. of their first year

35% of our incoming students have averages of +90% and 45% of them have averages in the 85-90% range

Over 60% of engineering students live with their parents.

Over 60% of engineering students speak a language other than French or English at home.

I find many of these statistics very surprising and they make me wonder if the Engineering Society is really holding the right events at orientation and throughout the year. If more than half of the incoming students haven't had a BeVeRage in the year before entering Engineering, is it appropriate for us to hold SUDS every night during orientation and put so much emphasis on Flrosh Nite? Please direct your responses to me; email can be sent to jewett@ecf.utoronto.ca.



The Mech/Indy Dinner at Club Luxor

EngSci Club

by Kern Lewin ENG SCI 977

HUFF, HUFF

Ungh...

Almost... there...

Come on guys, we're almost at the holidays; just sweep these few exams under the rug, and go home to drown your sorrows in egg nog!

The EngSci dinner dance was monstrous and wonderful, shattering all attendance records, and a few pieces of moderately expensive furniture. Thanks to Becky and Kostas for all their work.

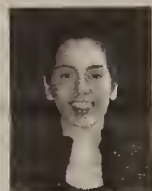
The Paintball trip was also a big success, with a tremendous, tour de force performance by our own Professor

Malone, who miraculously emerged virtually unscathed (despite the fact that we stacked his team with Flrosh). So, there will likely be another day of combat in the spring term; although perhaps for variety we will test the charms of another game; Laser Quest, anyone?

In the meanwhile, we've got the great pre-exam smoker coming up on November 27th; come and enjoy a smoker in the traditional EngSci style, but with the added bonus of death looming on the horizon! Instead of the usual free and easy somebody-else's-living-room atmosphere, treat yourself to an afternoon of the tense and fidgety swim-through-eel-infested-waters atmosphere that only finals can bring! PLUS chicken wings! (mmm, mmm, good...)

VP External Report

by Lucy Pegoraro INDY 978



Hello everyone: I hope the final "crunch" before exams is going well. It feels like just yesterday

when we had our first day of classes. Oh, how time flies!!! Here is an update on what has been happening on an "External" level:

Conference Update:

The *Women In Engineering Conference* was held at Queen's University on November 14th. Three students from this faculty had the opportunity to discuss issues that are affecting women in engineering in university and in the workforce. For a synopsis of this conference, please see *Women In Engineering Conference* (page 5) about this conference.

I had the opportunity to attend the *North American Engineering Student Conference* in Dayton, Ohio that took place from October 24th - 27th. It was insightful to see what was happening with Engineering Societies across the United States. A "Mastering Meetings" workshop (something that our Engineering Society will use), "Women in Engineering" discussions, and workshops from people in industry were the main events at this conference.

The *Canadian Congress of Engineering Students* will be hosted in Sherbrooke, Quebec from January 2nd - 8th, 1997. Six delegates from our faculty will have the opportunity to attend workshops, seminars, and round-table discussions about various issues within Engineering Societies nationwide, and bring back ideas and suggestions to our Council. One of the topics will be the provincial tuition cutbacks, and what we as a student body are going to do about them. Please see a Cannon issue in the new year for a synopsis of the conference.

For anyone interested in attending CIRQUE (A Conference on Industry and

Resources Queen's University Engineering) (professional development oriented conference), leave a message in the VP EX mailbox. Anyone can attend these conferences, just ask your class rep about them, or contact me at engsoc@ecf.utoronto.ca.

Tuition Update:

The paper called "Ontario University Restructuring — The Engineering Student Perspective" was presented to the Advisory Panel on Future Directions for Postsecondary Education (for a summary of this paper, read the next Cannon!). The Advisory Panel was hired by the provincial government to investigate ways to save money on a post-secondary education level. They have been looking at several possible alternatives, including those presented by ESSCO (Engineering Student Society Council of Ontario) who represents our views! Congrats to ESSCO! As well, there is a committee on this campus for anyone who is interested in "taking action" on a U of T level - "The Anti-Cuts Coalition". For information, contact their webpage: www.utoronto.ca/lacc.

14 Not Forgotten Campaign:

December 6th, 1989 - A gunman walked into an engineering class at l'Ecole Polytechnique in Montreal, separated the males from the females, and killed 14 of the women. We should remember this act of violence against women. The Engineering Society is holding a memorial candlelight ceremony on December 6th at 11:30 in front of the Sandford Fleming Building to commemorate this tragedy. Some of you may be writing an exam or otherwise unable to attend this service. If so, there are "14 Not Forgotten" pins available in the Engineering Society that we should all wear to remember this tragedy. SHOW YOUR SUPPORT!

Since this is the last Cannon issue before the end of the term, I wish everyone the best of luck on exams. I also wish everyone best wishes for a joyous holiday season and a prosperous New Year.

Women in Engineering: Why Are There So Few?

by Julian Dunn COMP 070

Women in engineering have always been few and far in between. Why is this? Many different groups have conducted studies and collected data on why there are so few women in engineering. On the whole, we find that everything comes back to stereotypes — stereotypes about what career women “should be pursuing” and stereotypes about what kind of people “make” engineers. These stereotypes do not arise only in university — they are inherent in our society and establish themselves long before a student has to make his or her choice of a university program.

Of course, this is not to say that the university does not have a role in the dismal enrollment rates of women in engineering. While blatantly sexist events such as the Lady Godiva Ride have disappeared from campuses, sexism often appears in more subtle forms. For example, negative or sexist attitudes from faculty members. “The only blatantly sexist remark I remember was a comment made by a professor. He did not believe that engineering was a suitable occupation for a woman. He did not take this so far as to penalize our grades, but I think all the women in my class got the message,” says a woman student in a 1992 report from the Canadian Committee on Women in Engineering. Penalization of grades are another method of discrimination, and one of which has occurred at the University of Toronto. Anna Galea, a fourth-year engineering science student, reported that she had once been subjected to a teaching assistant who consistently gave her low grades because she was a woman. These and many other forms of discrimination may be rampant, but unfortunately, many women do not report sexism for fear of repercussions, or simply because it is easier to ignore the problem. One female student in the CCWE report said that some women refuse to recognize that there is a problem simply because they are “managing all right in a male-dominated field and that is what counts.” Because of the high level of competition in engineering, students may blame their own weaknesses for poor grades, rather than contemplate the issue of possible discrimination.

In fact, the high level of competition may be another factor that discourages students from applying to engineering schools. Galea says she “hates competition...I wanted to establish myself as someone who doesn’t stand for it.” She



Assistant editor, Karen, hard at work.

related an incident in first year where she reacted angrily to a fellow student’s interrogation about her average. “I said, ‘How dare you ask me about my standing before you say hello!’,” she says with a chuckle. Sheila Tobias, an American professor who studied why students with the aptitude for engineering choose to study arts or science, agrees that obsessive competition is detrimental. In her book *They’re Not Dumb, They’re Different: Stalking the Second Tier* she says that the high level of

“I had a very strong head. I thought, ‘You’re telling me not to go into engineering’, so I went!”

high level of competition and the “every person for himself” attitude is not conducive to establishing a positive image of engineering. Tobias recognizes that women may be more put off by this image rather than men, simply because women have traditionally been brought up to be more submissive and emotional.

This last idea leads us into questions about other influences that might cause women to think themselves “unsuitable” for the predefined image of engineering. In particular, the way children are brought up has a large influence on the image they will have of themselves later on. From the beginning of a child’s life, society already establishes gender roles in the form of toys and games, television and books. Boys learn about problem-solving, construction,

design, mathematics and chemistry through toys such as model airplanes, bridges, chemistry sets, and so on. On the other hand, girls learn about nurturing, caring for others and housekeeping with toys such as dolls and cooking sets. Many TV shows still portray men as dominant and women in supporting roles. Books, as well, continue to be geared towards a particular sex: romance stories for girls and adventure books for boys.

The parental influence cannot be neglected either. Many female engineering students who participated in the CCWE study said that their parents did not, either consciously or unconsciously, force them into traditional feminine, submissive roles. Anna Galea related her experience with her parents, who wanted her to take arts: “I had a very strong head. I thought, ‘You’re telling me not to go into engineering’, so I went!”

By the time children reach high school age, expected behaviours and roles have already been so instilled in them that they already think a certain way about what career they will end up choosing. Girls often do not choose physics and chemistry to be their science courses, simply because they assume they will perform poorly. One engineer in the CCWE study gives a good insight into her high school experience: “In grade 9 I bid farewell to almost all of my female classmates and chose math, physics and chemistry as part of my high school matriculation. What stopped all those clever young girls from taking the same subjects as me? I assumed they were not joining me... because they believed they had a predetermined destiny. They assumed they would not succeed in these subjects before they even tried.”

Further negative experiences in high school only help discourage women who might consider “non-traditional” career paths and divert them into “traditional” ones — say, becoming a nurse rather than a doctor, or a chemist rather than a chemical engineer. Much of the fault lies with teachers and guidance counselors, who perpetuate myths like “women don’t have what it takes academically to do engineering”, despite research such as a University of Saskatchewan study showing female students performing equally or better than males in mathematics or physics. Galea’s guidance counsellor, who had tried engineering once, painted a horrible picture of being a woman in engineering relating discouraging anecdotes such as being un-

able to put her first name on papers because they would be marked poorly.

Galea says that in the course of doing High Skule™ Liaison work, she usually gets surprised looks and exclamations like “You do WHAT?” The CCWE study suggests more female engineers visit schools to talk about their profession, so that high school students can see a role model. As one engineer pointed out, “Somehow there is a big difference between knowing that it is possible [to become an engineer] and seeing that someone has really done it.”

Statistics show that the number of women registered as professional engineers has increased from 0.5% to 3.2% from 1980 to 1990, but these numbers are still dismal compared to other professions, such as the sciences and law. Vera Kan, a second-year civil engineering student at U of T, suggests that these figures “are a reflection of the fact that [people] didn’t address [the problem of the low number of women engineers] until very recently.”

	Male	Female
Chemical	61.80%	38.20%
Civil	83.90%	16.10%
Computer	87.80%	12.20%
Electrical	79.30%	20.70%
Eng Sci	75.30%	24.70%
Geological	72.70%	27.30%
Industrial	52.80%	47.20%
Mechanical	86.20%	13.80%
MMS	93.00%	7.00%

However, we still have much work to do. Not only must the perception of female engineers be changed, but the stereotypical image of engineers in general must be done away with. Otherwise, potential female students will be discouraged in two ways — the perceived stigma of being an engineer, and being a woman on top of that. Universities can do their part by examining their environments and instituting gender sensitivity and awareness programs for students, faculty, staff and administrators. Should harassment occur despite preventive measures, there should be a means through which students can file complaints. The CCWE report (which is available in the Career Centre library) describes many other measures for making universities more women-friendly. We must all try our best to reverse many years of inequality, and to give engineering an image which is in-line with other professions.



Mech 9T8s, Kevin and Ching-Yi, working on a project.

Career Centre

Career Trends

by Terry Johnston, Engineering Liaison Coordinator

Electronic Resumes II

In the last issue of the paper, I only had the space to print the first half of an article on electronic resumes. This second half details some of the technical aspects of putting together an electronic resume.

Previously, we had covered a number of issues including: finding out whether the employers to accept electronic resumes, considering what format it should take, and thinking about what security concerns you should have. I began discussion of technical details required to put together an electronic resume and had you consider that many resumes are now sorted and ranked by the number of keywords (nouns that describe skills, education, experience, or characteristics) found in them.

In considering the technical aspects, we had covered font, point size, bolding, highlighting, the use of white space and were just getting into a discussion of how to include certain aspects of the content. For example, it is important to minimize general abbreviations (MVP) and maximize industry jargon and abbreviations (JIT for example). Also, call things what they are; instead of iron spike, call it a nail.

Once your resume is in an electronic format, mail it to yourself to see how it looks after being mailed. This will help you identify any formatting problems before sending it out to possible employers.

Resumes, increasingly, are sorted and ranked by the number of keywords found in them. A good electronic resume will contain the necessary keywords to attract attention whether it is being read by a hiring manager, scanned and searched in a management system, or indexed on an Internet site. Cost-saving is the main reason for the increased use of scanning technology. With fewer HR staff and more applicants, scanning is a cost effective method of screening resumes. Learn to describe yourself in keywords. Ensuring that you are telling the truth, include keywords from employment ads that interest you.

Scanning software performs a first scan for keywords (both required and desirable) and then a computer produces a list of preferred candidates ranked by the number of matches. The system reads numbers (not words) to assess the amount of experience you have so use 91-96 rather than "five years". It is important to put

all the key information up front as some systems will read a limited number of keywords and will then stop. A summary of key skills at the beginning of your resume is also worth considering (although there is some debate about this). When employers get the results of a scan for suitable resumes they are given one of 3 basic forms: full text, applicant summary or exact copy. Remember, the key to writing winning electronic resumes is to focus on keywords and nouns.

Once you've put together an electronic resume you can forward it to networking contacts or recruiters through email. Always send text in the message and then ask if they would like a printed copy for their records. Never assume you can attach a word-processed document to an email message to someone. Don't forget to include a cover letter and a note explaining why you are contacting this person. If you're responding to an advertised position, use the job title and/or reference number as the subject of your message.

In addition to forwarding your electronic resume to individuals, you can also post it in one of any number of employment databases. If you have found several good job listings at a particular site, consider registering your resume there. Once you have done this, you can usually send just a quick message or reference number to apply for an advertised position within the database of listings.

Adding an electronic resume to your traditional job search tools will only increase your chances of success in today's employment market. Once you have found out whether the employers to whom you are applying accept electronic resumes, learned how to format your electronic resume and ensured that you are aware of potential security concerns, you can bring your resume into the information age.

The Engineering Liaison Office was created in 1985 to market the benefits of hiring University of Toronto engineers and to promote the services of the Career Centre to engineering employers.

Contacts:

Terry Johnston

Engineering Liaison Coordinator

Phone: (416) 978-8022

Anne Eto

Employment Committee Chair

Phone: (416) 978-2917

E-mail: career@ecf.utoronto.ca

Visit the Career Centre's web site at <http://www.utoronto.ca/uoft.html>

Information From The Office of the Registrar

How Students Can Access their Records through the Web

1 Through the Information Commons kiosks located on the first floor of the Robarts Library.

On the startup page of the IC kiosk, click on Student Record System - Review or Change your electronic student record.

Once you get to the Student Record Web-Based Self Service web site, click on Provides Access for detailed information, then click on Student Record Web-based Self Service

2 Through a personal computer using Netscape 2.0 or higher.

2.1 For a direct route, beside Location enter <http://stuart.utoronto.ca>

Once you get to the Student Record Web-Based Self Service web site, click on Provides Access for detailed information then click on Student Record Web-Based Self Service.

2.2 From the U of T Home Page (<http://www.utoronto.ca/uoft.html>)

Under Students click on Services, Groups, Activities then under All Academic and other Services click on Student Records System Access.

Once you get to the Student Record Web-Based Self Service web site, click on Provides Access for detailed information then click on Student Record Web-based Self Service.

At this point in time, the following services are available to students:

Change the PIN which is needed to access both this Web service and the Student Telephone Service.

Review and change sessional address, permanent address, and business address.

Review activity on the Student Telephone Service.

Academic Integrity

The University of Toronto is committed to honesty and integrity in academic

work as one of its most fundamental values. The conduct of its members is governed by the Code of Behaviour on Academic Matters. Every student should be familiar with this Code, which is published in all Calendars and on the U of T web site at: www.campuslife.utoronto.ca/policies/academiccode.html. The Code is readily available in Faculty and College offices.

From time to time, students desire assistance in the preparation of assignments and essays. They are strongly encouraged to make use of the resources the University provides for such help. Course, tutorial and lab instructors are available at announced times for guidance. The University is also fortunate to have a number of College and Faculty writing labs, and students should avail themselves of these excellent facilities.

There are other services that advertise themselves. Students should be aware that many such services are not authorized, and that undue dependence upon them may constitute an offence under the Code. In particular, the submission of products from essay services is explicitly forbidden and will result in severe penalties, up to and including expulsion from the University.

Whenever there is any doubt about the acceptable nature of assistance in academic work, students should seek explicit advice from their course instructor.

Exam Information

All examinations last 2.5 hours.

For all the examinations, permissible aids are pen and pencil, a bilingual dictionary, drafting instruments and, if permitted, an electronic calculator (see below) without their carrying cases.

Unless specifically prohibited, the use of certain types of non-printing, silent, self-powered electronic calculators is permitted in all examinations. There are restrictions on the kinds of calculators permitted. For complete information see "Instructions for the Guidance of Candidates' During Examinations" posted outside the Registrar's Office.

Seating Lists

Seating lists are posted outside the Registrar's Office as well as available through ECF by opening the file "ExamSeatingList" in the us/copy directory.

Don't Forget: Misreading the timetable WILL NOT be accepted as a reason for failing to attend an examinations.

Photo ID For Exams

Photo ID replacements are available in the Registrar's Office Tuesday 10:00-12:00 and Thursdays 2:00-4:00. Don't forget, you will need your Photo ID Card to write your exams!!

Exam Petitions

A student who believes that academic performance has been adversely affected by illness, mishap or other circumstance during the examination period should submit a Petition for Consideration in Final Examination, available at the Registrar's Office. Such petitions must be submitted to the Registrar's Office WITHIN ONE WEEK of the date of the student's last examination.

Best Wishes in Your Final Exams!!

Any Questions?? Send e-mail to: askus@ecf.utoronto.ca

GRADUATES: SALARY BREAKDOWN BY DISCIPLINE

1996 SALARY SURVEY SUMMARY

The following salary statistics are based on 57 returns from employers who participated in the Career Centre's Graduating Students Employment Service Program during the 1995-96 academic year. These salaries are representative of larger organizations and do not necessarily reflect those offered by small to medium sized organizations. Additionally, the limited response rate (an average of 8) can only be regarded as indicators of salaries offered by large organizations to new graduates.

BACHELOR	RESPONSE	RANGE	AVERAGE
CHEMICAL	12	\$34,000-\$48,300	\$38,713
CIVIL	10	\$34,000-\$48,300	\$38,705
COMPUTER	18	\$30,000-\$48,300	\$38,067
ELECTRICAL	18	\$31,000-\$48,300	\$38,009
ENG SCI	13	\$34,000-\$48,300	\$38,966
GEOLOGICAL	10	\$34,000-\$48,300	\$38,705
INDUSTRIAL	13	\$34,000-\$48,300	\$39,724
MECHANICAL	16	\$34,000-\$48,300	\$38,128
M M S	9	\$34,000-\$48,300	\$38,619
MASTERS	RESPONSE	RANGE	AVERAGE
CHEMICAL	3	\$37,000-\$51,000	\$42,167
CIVIL	3	\$37,000-\$40,920	\$38,807
COMPUTER	5	\$37,000-\$48,000	\$39,760
ELECTRICAL	6	\$33,000-\$48,000	\$38,633
ENG SCI	3	\$37,000-\$48,000	\$41,167
GEOLOGICAL	2	\$37,000-\$38,500	\$37,750
INDUSTRIAL	2	\$37,000-\$38,500	\$37,750
MECHANICAL	2	\$37,000-\$38,500	\$37,750
M M S	2	\$37,000-\$38,500	\$37,750

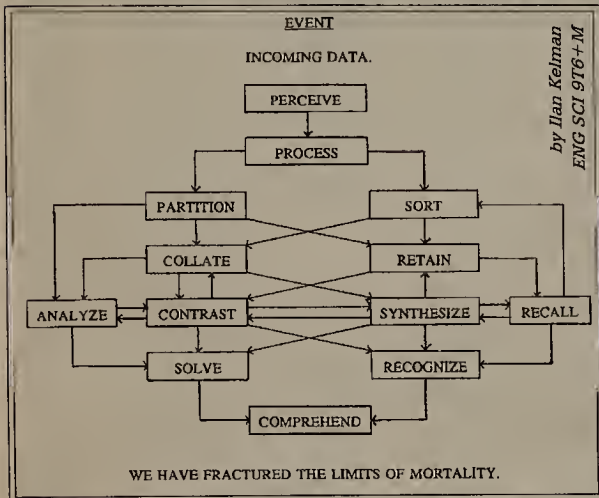
For further information or questions regarding this salary survey, please contact Terry Johnston at (416) 978-8022.

What Is...

by Ilan Kelman ENG SCI 9T6+M

...more subtle than reality, but not quite a dream?
 ...more delicate than a snowflake, yet not as chilling as a goodbye?
 ...softer than a first kiss, and yet as sensual as beauty?
 ...sweeter than a summer's day, and as delicious as an ocean breeze?
 ...more direct than simplicity, but as insidious as intimacy?
 ...more evocative than a mind, yet as incomprehensible as language?
 ...more intellectual than experience, and less intimidating than being alive?

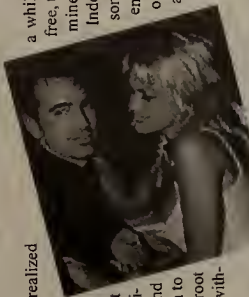
The answer, though filled with regret, remains none of the above.



French Eggs

by Teresa Huang GEO 979

Pamela Anderson and Tommy Lee are getting a divorce! It's a wonder how a man could relinquish a woman who is more like calcite than quartz - fracture plane wise. Then again, she had probably had so much done to her that she would likely make a good semi-conductor. Hmmm... and they say that f&scs ones are suppose to be less dense?! That contradicts with a lot of stereotypes! And Tommy is supposed to be a rocker, too!



Oh well. Ah, love. I realized I wish to remain trouble-free. I want a relationship that should be of benefit to me, but not be a mathematical one. I want to be able to meet people, but not be like Java - object-oriented. I want a platform independent, and a machine! Is it too much to ask for a square root like the square root of two? And without any rational... and without any polygon.

Love was supposed to be something blissful. Yet somehow it seems to always stir up more calamity than serenity. The internal emotional turmoil would be difficult enough to bear without the meddling of gossip. Indeed, it is even worse when the gossips just randomly chuck away the truth and lie. Hence one must be clever enough to take such words with a grain of rock salt. Enough ironic gibberish. Let us just hope that Pamela and Tommy can find enough time to remember their spark, if not enough dollars to settle for the lack of it.

JOB OPPORTUNITY

Needed . . . two engineering students to work with me setting up our very first ever Virtual Career Fair. Two positions are available at 12 hours per week, \$15 per hour and will run from now until March 28th. The skills required are as follows:

- experience setting up WWW sites
- detail oriented
- technical
- computer programming
- time management
- event organization
- teamwork
- computer graphics
- problem solving

The work involved will entail setting up our Virtual Career Fair WWW site and then marketing this event to both employers and students. If you are interested in this position, please drop off a résumé and covering letter to Terry Johnston at the Career Centre Information Desk by Monday, December 2, 1996.

Movie Reviews

by Julian Dunn COMP OTO

Romeo &

★ ★ ★



After seeing this version of *Romeo & Juliet*, I am tempted to say that I don't like "partial adaptations" of Shakespeare. In this version, director Baz Luhrmann's modernization

Ransom

★★★★★

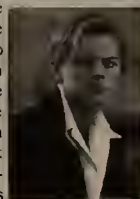
I swore I wouldn't make a single comparison about Mel Gibson's transformation from Scottish patriot to business executive, so suffice it to say that such a transformation only goes to demonstrate Gibson's diversity of talent.

Ransom, for those who have not seen the trailer for it (and you must have, if you've watched television at all in the last four weeks), is about the kidnapping of an airline executive's son for money — what else. (The airline executive, of course, is played by Gibson). Except the kidnappers are no morons — they have been assembled by a crooked police officer named Jimmy Shaker (played by Gary Sinise) and include a computer hacker so smart he can crash all of the FBI's computers. (This, fortunately, is one of the few leaps in logic — a surprisingly low number given the complexity of the plot.)

The twist is that Gibson's character Tom Mullen is no idiot either — he initially tries a pay-off, but soon discovers the kidnapers have little intention of returning his son alive. Tom decides to play a risky game with the kidnapper — he puts the ransom money up as a reward on the kidnapper's head, hoping someone will catch Shaker before he tires of the circus act and kills the kid. The ending may or may not surprise you, but the irony is what makes the film beautiful. *Ransom* is a psychological thriller in another sense (rather than the "police-officer-in-dark-alley" sense) — the audience is kept waiting to



Mel Gibson



Leonardo DiCaprio

wherefore art thou
Romeo? Deny thy father and refuse thy
name", and Leonardo diCaprio demon-
strating a similarly energetic unbridled
passion, the "frolicking in the pool" is re-
ally quite amusing and touching.

In fact, the good scenes are the ones with a more traditional setting, such as the costume ball, because you can concentrate on the magic of Shakespeare's script instead of being distracted by visual stimuli. The death scene was very well done, and I actually prefer a church to a tomb for the lovers' tragic suicide.

I would have given the movie two stars because I was so put off by the mismatching of script to setting, but diCaprio and Danes' performances save the film from total disaster. If you go to see this picture, I suggest you purchase popcorn during the first fifteen minutes.



Gary Sinise

excellent reward for studying hard for exams.

Feeling artistic?

Submit your piece to **THE CANNON**

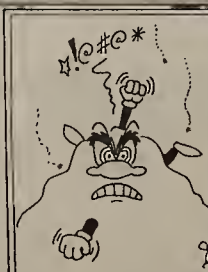
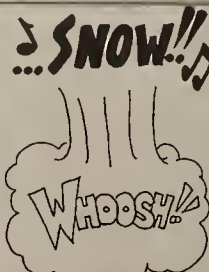
The Faculty of Applied Science and Engineering



Course	Home Range	Room	Seats	Colour	Course	Home Range	Room	Seats	Colour
CIV101F	ABAD, A.V. - CARMICHAEL, J.A.	GB304	47	--	AER415F	AXON, R.T. - SCHMELZER, O.	SF4103	9	GOLO
CIV101F	CARTER, M. - D'SOUZA, R.	GB305	62	--	CHE311F	AGARWAL, R. - ZAPANTA, B.	SF3202	74	--
CIV101F	DAI, P.N. - HO, W.P.	SF3201	100	--	CHE492F	BROWN, A.J. - YAP, K.L.	SF4102	5	BLUE
CIV101F	HO, W.Y.P. - LAI, D.	SF3202	80	--	ECE334F	AKON, T.N. - ZHANG, Y.X.	MC215	107	--
CIV101F	SOEGIHARTO, M.S. - VIJAYAKUMAR, S.	SF1013	120	--	MAT389F	AARABI, P. - YAO, E.S.	WB242	60	--
CIV101F	NEGRINI, J.O. - SOANS, N.N.	MC215	120	--	MIE351F	ANTONIS, X. - YEUNG, D.P.W.	SF4103	29	BLUE
CIV101F	VITULLO, K.M. - ZHOU, X.	WB242	60	--	APS185F	CHAM, A. - ZHOU, X.	SF3202	63	--
ECE350F	AARABI, P. - WEE, E.	HA403	20	GOLD	ECE241F	AGGARWAL, A. - LAM, L.	SF3201	100	--
ECE416F	AAMODT, T.M. - CAM, S.B.	HA401	16	BLUE	ECE241F	LAM, S.P.S. - ZHOU, Y.	SF1013	120	--
ECE416F	CARUANA, F. - HUYNH, T.K.S.	HA410	42	BLUE	ECE370F	ALVAREZ, J. - ZMUDZINSKI, M.E.	GB304	43	--
ECE416F	HUYNH, T. - LEUNG, E.	SF4102	27	BLUE	ECE426F	ALTAF, W. - ZUKOTYNSKI, K.A.	WB242	49	--
ECE416F	LEUNG, P.K.T. - POSNER, D.E.Y.	SF4103	37	BLUE	MIE230F	AKBER, M.S. - FISHER, R.S.	GB305	55	--
ECE416F	PU, X.C. - ZHEN, G.Y.D.	HA403	37	BLUE	MIE230F	FLAMAN, B.G. - ZAPARENKOS, E.	MC215	113	--
MIE372F	BACZYNSKI, C. - YUEN, P.P.H.	SF4102	24	GOLD	APS103F	ABAD, A.V. - FUNG, C.P.J.	SF3201	90	--
MIE519F	AZIZ, S.O. - TSANG, C.M.	HA401	3	GOLD	APS103F	FUNG, L.K.F. - NGO, V.K.	SF1013	110	--
MMS150F	OAVIS, A.M. - SMITH, S.	HA410	14	GOLO	APS103F	NGUYEN, H.M. - YU, T.	MC215	111	--
CHE200F	ALPUERTO, A.M. - CHEN, C.H.	HA401	14	GOLO	CHE372F	BAXER, L.P. - SUN, J.B.	HA401	8	GOLD
CHE200F	CHOI, A. - MACLEAN, L.M.	HA410	39	GOLO	CIV102F	ABD-EL-BARR, M. - ISHIGURO, J.K.	SF3202	77	--
CHE200F	MAHARAJ, S. - ZINKOV, L.	HA403	35	GOLD	CIV102F	ISONO, S.Y. - NG, J.J.	WB242	57	--
CHE463F	ABOUBATALLAH, R.M. - WONG, B.B.L.	SF4102	28	BLUE	CIV102F	O'KANE, D.S. - ZANETTI, B.S.	WB342	57	--
CIV321F	AL-MAQOASY, F.G. - KOUTSOULIAS, P.P.	GB304	39	--	ENG182F	ABRIGO, M.H. - DEVANI, H.	GB304	47	--
CIV321F	KOWAN, J.E. - YUNG, J.C.M.	GB305	54	--	ENG182F	DHILLON, G.S. - KRIEBER, K.A.B.	GB305	62	--
CIV514F	AL TABBA, R. - FERLIZ, A.A.	SF4102	19	GOLD	ENG182F	KUMAR, D. - LEUNG, R.K.	HA401	19	BLUE
CIV514F	FISCALETTI, M. - ZAYDIK, A.K.	SF4103	30	GOLD	ENG182F	LIN, D.L.C. - NG, F.S.	GB405	34	BLUE
CSC180F	ABO-EL-BARR, M. - LAW, Y.H.	SF3201	75	--	ENG182F	NG, J. - SUE, G.R.	HA410	45	BLUE
CSC180F	LEE, C. - ZANETTI, B.S.	SF3202	56	--	ENG182F	TAM, W. - ZAVERI, N.	HA403	40	BLUE
CSC181F	AUL, C.S. - YEUNG, P.L.Y.	WB342	58	--	CIV310F	AL-MAQOASY, F.G. - LITTLE, J.M.	HA410	42	GOLD
JTC413F	BAHOUDIAN, L.N. - STOOLKA, D.	HA401	18	BLUE	CIV310F	LUI, B.K.M. - YUNG, J.C.M.	HA403	37	GOLD
MAT291F	AGGARWAL, A. - LEE, J.	SF1013	110	--	CIV465F	BROWN, A.J. - YAP, K.L.	SF4103	6	BLUE
MAT291F	LEE, P.K.A. - ZHOU, Y.	MC215	111	--	CIV540F	ANDISHA, Q. - WONG, J.W.	SF4103	2	GOLD
MIE404F	AL-ATTAR, I. - LUCIANI, V.	HA410	40	BLUE	CSC326F	AKON, T.N. - MIAO, W.W.	SF3201	74	--
MIE404F	MOK, S.F.E. - ZMUDZINSKI, M.E.	HA403	35	BLUE	CSC326F	MOORE, A.J. - ZHANG, Y.X.	SF3202	54	--
MIE466F	ALVAREZ, J. - ZUPANCIC, R.M.	WB242	59	--	ECE330F	ADAMEK, P. - LAU, B.H.	GB304	32	--
MMS202F	ADDETTA, R. - ZODIAN, A.	SF4103	29	BLUE	ECE330F	LAU, K.Y.A. - ZABUDSKY, A.S.	GB305	47	--
APS105F	ABAD, A.V. - HADI, Q.N.	GB304	44	--	MIE270F	ABRQUEZ, J.W. - YOUNG, C.	MC215	108	--
APS105F	HAMER, I. - RAJ, O.	GB305	59	--	MIE320F	AGGARWAL, K. - ZARGAR, F.	SF1013	92	--
APS105F	RAJENDRAM, I. - ZHOU, X.	GB405	32	BLUE	MIE360F	ANADOL, B. - YU, J.	WB242	47	--
APS106F	BALASUBRAMANIAM, V. - CHOW, J.C.S.	HA401	17	BLUE	MIE467F	ARBESMAN, J.O. - ZUPANCIC, R.M.	SF4102	30	BLUE
APS106F	CROITOR, V. - NER, J.T.	HA410	43	BLUE	MMS315F	ACHONG, C.R.G. - YANG, K.	HA410	22	BLUE
APS106F	NEVES, J. - YU, M.S.	HA403	38	BLUE	MMS450F	ANDERSON, R.B. - YOSHIDA, D.	HA403	18	BLUE
APS107F	ABRIGO, M.H. - GAN, M.W.S.	SF4102	28	BLUE	AER410F	AXON, R.T. - WILMS, J.	GB405	14	BLUE
APS107F	GARDINER, A. - MA, P.	SF4103	38	BLUE	APM280F	ASTANI, R. - YUE, S.S.Y.	SF3201	99	--
APS107F	MAC, D.M. - YU, T.	WB242	53	--	CHE221F	ALPUERTO, A.M. - ZINKOV, L.	SF1013	87	--
BME595F	BAKER, L.P. - ZUKOTYNSKI, K.A.	SF4103	20	GOLD	CHE321F	AGARWAL, R. - ZAPANTA, B.	SF3202	75	--
CHE112F	ABOEL KHALEK, A.M. - HUANG, H.	SF3201	97	--	CIV519F	ABREU, H.S.G. - TUEN, E.K.W.	GB405	29	GOLD
CHE112F	HUANG, Y.W. - MEYER, S.P.	SF3202	77	--	ECE410F	ALTAF, W. - ZHEN, G.Y.D.	MC215	120	--
CHE112F	METCALFE, O.R. - ZHANG, H.R.	SF1013	118	--	MMS207F	ADDETTA, R. - ZODIAN, A.	GB305	31	--
CHE390F	HONG, S. - SMITH, R.	SF4102	4	GOLD	ECE354F	AARABI, P. - KIM, H.	SF4102	27	BLUE
CHE412F	BAKSH, D. - RAKOCZY, D.S.	HA401	4	GOLD	ECE354F	KURZAWA, M. - YAO, E.S.	SF4103	38	BLUE
ECE443F	AAMODT, T.M. - ZHANG, Y.V.	WB342	50	--	ECE557F	AAMODT, T.M. - ZHANG, W.P.P.	SF4102	24	GOLD
ECE540F	ACHONG, D.K. - YUE, P.C.A.	GB405	24	GOLO	JME209F	ABARQUEZ, J.W. - YOUNG, C.	MC215	91	--
HPS280F	ADDETTA, R. - ZMUDZINSKI, M.E.	MC215	98	--	MIE414F	AL-ATTAR, I. - ZMUDZINSKI, M.E.	SF1013	73	--
AER301F	BACZYNSKI, C. - YUEN, P.P.H.	HA403	14	GOLD	MMS270F	AKBER, M.S. - LEE, D.T.	SF3201	93	--
APS232F	AGGARWAL, A. - ZHOU, Y.	WB242	48	--	MMS270F	LEE, E.S. - ZAPARENKOS, E.	SF3202	74	--
CHE553F	ABOUBATALLAH, R.M. - HARAPIN, I.	SF4102	18	GOLD	PHY385F	ANADOL, B. - YU, J.	GB304	47	--
CHE553F	INOSANTO, P.J. - YANG, J.X.	SF4103	28	GOLD	MAT188F	ABRIGO, M.H. - GRABEL, D.J.	SF3201	96	--
CIV416F	ABREU, H.S.G. - WONG, M.C.	WB342	47	--	MAT188F	HAAR, S.S. - LEUNG, D.K.B.	SF3202	77	--
ECE320F	ADAMEK, P. - LEUNG, S.Y.C.	HA410	41	BLUE	MAT188F	LEUNG, G. - SUK, H.	SF1013	117	--
ECE320F	LEUNG, W.V.Y. - ZABUDSKY, A.S.	HA403	37	BLUE	MAT188F	SWEETNAM, M.L. - YU, T.	WB242	57	--
EOV220F	ABARQUEZ, J.W. - CHU, W.K.W.	SF4102	27	BLUE	MAT194F	ACRI, J. - EL-HAJ KHALIL, K.	GB304	42	--
EOV220F	CHUA, K.L. - KOH, L.H.	SF4103	37	BLUE	MAT194F	EL-SAMROUT, R.R. - GINSBERG, N.S.	HA401	14	BLUE
EOV220F	KOSTELNIK, O. - ZAPARENKOS, E.	SF3201	97	--	MAT194F	GINSBURG, J.K. - KWAN, R.	HA410	39	BLUE
MIE301F	AGGARWAL, K. - FERREIRA, S.M.	GB304	40	--	MAT194F	LAM, C.H. - MA, R.	SF4102	24	GOLD
MIE301F	FRIEDMAN, J. - ROLLER, D.K.	GB305	56	--	MAT194F	MAGNOTTA, T.G. - RIVET, D.C.	SF4103	34	GOLD
MIE301F	SAMSON, N.J. - ZARGAR, F.	GB405	28	BLUE	MAT194F	ROUTLEDGE, J.A. - ZANETTI, B.S.	HA403	35	BLUE
MMS314F	ACHONG, C.R.G. - YANG, K.	GB405	21	GOLD	MAT198F	ABAD, A.V. - DEWAN, S.	GB305	61	--
MMS402F	BAWA, S. - YUEN, T.	HA401	5	BLUE	MAT198F	DHILLON, G.S. - GILLAN, M.	SF4102	28	BLUE
MMS420F	DENG, M.B. - TURK, P.J.	HA410	11	GOLD	MAT198F	GOLEC, C.F.M. - KHUSHAL, S.	SF4103	38	BLUE
PHY180F	ABO-EL-BARR, M. - HUYNH, T.D.	SF3202	74	--	MAT198F	KIM, K.G. - SHEK, E.Y.L.	MC215	119	--
PHY180F	IP, J.W. - ZANETTI, B.S.	SF1013	115	--	MAT198F	SHIU, L.M.N. - ZHOU, X.	WB342	59	--
PHY280F	ABTANI, R. - YUE, S.S.Y.	MC215	98	--					

Stanland

By Stanis Yu ENV CHEM 9T7



Merry Christmas



9T7 DAYS TO IRON RING

All Common Rooms open FOR CELEBRATIONS!!!

November 29, 1996 -- look for details--

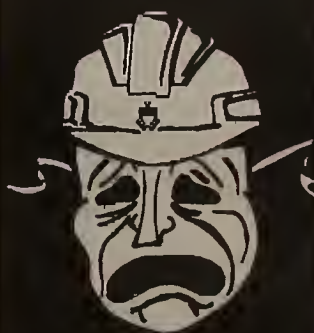
Course	Name Range	Room	Seats	Colour
CHB466F	AKON, R.N. - YEOW, T.Y.	HA410	26	GOLD
CIV339F	AL-MAQOASY, F.G. - YUNG, J.C.M.	MC215	89	--
CIV420F	ANGELAKOS, O. - GIOVANNIELLO, R.	SF4102	28	BLUE
CIV420F	GUINARD, C.L. - YIP, H.	SF4103	39	BLUE
ECB471F	ANDERSON, R.B. - YOSHIDA, O.	HA401	15	GOLD
ECB534F	ALTAF, W. - ZHEN, G.Y.O.	HA403	32	GOLD
MAT290F	AGGARWAL, A. - COZZI, A.D.	GB304	43	--
MAT290F	CROWDY, E.K. - LAM, C.L.	GB305	58	--
MAT290F	LAM, L. - LEE, T.	HA401	16	BLUE
MAT290F	LEON, M.J. - NGO, T.H.T.	GB405	31	BLUE
MAT290F	NGUYEN, T.N.P. - TA, B.	HA410	41	BLUE
MAT290F	TAM, O.C. - ZHOU, Y.	HA403	36	BLUE
MIE371F	ADAMEK, P. - FOISY, O.G.	SF3201	89	--
MIE371F	FRANCIS, N.X. - LEE, S.	SF3202	69	--
MIE371F	LEE, V. - TANG, C.H.V.	SF1013	109	--
MIE371F	TANG, W.L. - ZHANG, Y.X.	WB242	50	--
MIE468F	ANGEL, A. - COUTINHO, A.	SF4102	16	GOLD
MIE468F	OAM, S.O. - ZUPANCIC, R.M.	SF4103	27	GOLD
MMS401F	APPS, C.O. - YUEN, T.	GB405	25	GOLD
AER402F	AXON, R.T. - WILMS, J.	SF4102	15	GOLD
APM291F	ADDETIA, R. - ZOOTIAN, A.	SF4103	38	BLUE
CHE211F	ALBUERTO, A.M. - ZINKOV, L.	SF3201	90	--
CHE349F	ABUATALLAH, R.M. - LINDSAY, T.M.	HA410	42	GOLD
CHE349F	LING, A.R. - YOUSEFIAN, S.	HA403	37	GOLD
CIV531F	ABREU, H.S.G. - TERZIEVSKI, O.O.	HA401	15	GOLD
CSC442F	AH PIN, E.H.C.P. - LAM, I.N.	HA410	45	BLUE
CSC442F	LAM-HANG, B.A. - YUEN, T.Y.S.	HA403	40	BLUE
ECE310F	ADAMEK, P. - KRNIC, B.	SF3202	73	--
ECE310F	KROMKAMP, A. - ZHANG, Y.X.	SF1013	114	--
ECE353F	ARABI, P. - WONG, K.C.M.	WB242	45	--
ECE413F	ANDROUTSOS, P.P. - ZHEN, G.Y.O.	SF4103	34	GOLD
MIE210F	AKBER, M.S. - FACCHINI, G.	GB305	55	--
MIE210F	FISHER, R.S. - ZAPARENKOS, E.	MC215	113	--
MIE361F	ANADOL, B. - ZHAO, S.	SF4102	28	BLUE
MIE448F	CERIT, E. - ZAVERI, N.	HA401	19	BLUE
CIV210F	ABARQUEZ, J.W. - YOUNG, C.	MC215	108	--
CIV312F	AL-MAQOASY, F.G. - YONG, J.C.M.	SF3201	79	--
CIV524F	AL TABBA, R. - YIP, H.	GB304	29	--
ECE250F	ABTAHI, R. - YUE, S.S.Y.	SF1013	100	--
ECE512F	BRADIC, L. - ZHANG, W.P.P.	GB305	32	--
MMS316F	AXON, S.R. - YU, R.C.	SF3202	40	--
AER305F	BACZYNSKI, C. - YUEN, P.P.H.	GB405	17	--
CHE332F	AGARWAL, R. - KERAMARIS, G.	GB304	29	--
CHE332F	KERBA, C.P. - ZAPANTA, B.	GB305	45	--
ECE212F	AGGARWAL, A. - LEE, E.D.	SF1013	111	--
ECE212F	LEE, J. - ZHOU, Y.	MC215	111	--
MIE312F	AGGARWAL, K. - LIU, C.S.	SF3201	67	--
MIE312F	LOONG, P. - ZARGAR, F.	SF3202	47	--
CIV550F	ANDISHA, Q. - ZAYDIK, A.K.	SF4103	25	GOLD
BCE445F	BERI, S. - ZUKOTYNSKI, K.A.	GB304	45	--
BCE446F	BAYRAKDARIAN, I. - ZHANG, Y.V.	SF4102	18	GOLD
MIE231F	AKBER, M.S. - LEE, D.T.	SF3201	93	--
MIE231F	LEE, E.S. - ZAPARENKOS, E.	SF3202	74	--
MIE343F	ANADOL, B. - YU, J.	GB305	49	--
MIE446F	AL-ATTAR, I. - JARJOURA, A.S.	SF4102	26	BLUE
MIE446F	KATZ, A. - ZHU, J.G.	SF4103	37	BLUE
CHE203F	ALBUERTO, A.M. - CHEN, C.H.	HA401	14	BLUE
CHE203F	CHOI, A. - MARTINEZ, C.M.	HA410	40	BLUE
CHE203F	MATTHEWS, L.L. - ZINKOV, L.	HA403	35	BLUE
CHE468F	CHAN, G.T.F. - YOUSEFIAN, S.	SF4103	26	BLUE
BCE435F	AH PIN, E.H.C.P. - ZHANG, W.P.P.	SF4102	24	BLUE
MAT186F	ABRIGO, M.H. - FU, H.M.	SF3201	90	--
MAT186F	FUNG, A.W. - KRIGER, M.	SF3202	71	--
MAT186F	KULAR, J.S. - PAULO, M.M.	SF1013	111	--
MAT186F	PENG, J.K. - YU, T.	MC215	111	--
MAT196F	ABAD, A.V. - OAMJANOSKI, A.	GB304	46	--
MAT196F	OANG, T.P.T. - KO, O.K.W.	GB305	61	--
MAT196F	KOCH, V.M. - MOHAMMADI, B.	HA410	43	GOLD
MAT196F	MOLES, R. - PEERS, C.W.	SF4102	28	GOLD
MAT196F	PETROVIC, M. - TANG, C.K.R.	SF4103	38	GOLD
MAT196F	TANG, R. - ZHOU, X.	HA403	39	GOLD
CHE150F	ACRI, J. - IP, J.W.	SF3202	74	--
CHE150F	ISHIGURO, J.K. - ZANETTI, B.S.	SF1013	115	--
CIV255F	ABARQUEZ, J.W. - YOUNG, C.	MC215	91	--
CIV331F	AL-MAQOASY, F.G. - LEUNG, E.H.Y.	HA410	41	GOLD
CIV331F	LI, G. - YUNG, J.C.M.	HA403	37	GOLD
CIV575F	BOODY, A.M. - ZAYDIK, A.K.	GB305	60	--
ECE253F	ABTAHI, R. - YUE, S.S.Y.	SF3201	99	--
ECE355F	ARABI, P. - YAO, E.S.	WB242	58	--
MAT280F	ADDETIA, R. - ZOOTIAN, A.	HA410	42	BLUE
MMS313F	ACHONG, C.R.G. - YANG, K.	HA403	21	BLUE
CHE331F	AGARWAL, R. - ZAPANTA, B.	SF3201	75	--
ECE411F	ADAMEK, P. - KRNIC, B.	SF3202	73	--
ECE411F	KROMKAMP, A. - ZHANG, Y.X.	SF1013	113	--
FRE186F	AQOI, A. - ZOOTIAN, A.	SF4103	25	BLUE
GE0410F	CHAK, J. - SEECHARAN, C.O.	SF4103	11	GOLD
MIE302F	AGGARWAL, K. - ZARGAR, F.	MC215	115	--
MIE373F	BATELAAN, M. - WOLF, A.R.	SF4102	8	BLUE
APM384F	BACZYNSKI, C. - ZUKOTYNSKI, K.A.	WB342	46	--
APS302F	AGGARWAL, R. - YANG, T.	WB242	48	--
CHE490F	BAKER, L.P. - YANG, X.O.	SF4103	17	BLUE
CIV261F	ABARQUEZ, J.W. - YOUNG, C.	SF1013	90	--
CIV549F	BAIK, D. - ZAYDIK, A.K.	SF4102	23	BLUE
CSC470F	AH PIN, E.H.C.P. - YUEN, T.Y.S.	GB305	60	--
ECB424F	ATTARAN, I. - ZHEN, G.Y.D.	MC215	69	--
ECES33F	ARASTAFAR, R. - WOO, R.	GB405	8	BLUE
ENG283F	BELLISARIO, C. - WONG, B.B.L.	GB405	15	GOLD
ENG284F	ABO-EL-BARR, M. - YIP, H.	SF4103	16	GOLD
ENG286F	BROWNE, R. - WRIGHT, J.	SF4102	22	GOLD
MIE240F	AKBER, M.S. - LEE, D.T.	SF3201	86	--
MIE240F	LEE, E.S. - YUN, S.M.	SF3202	67	--
MIE358F	ANADOL, B. - YU, J.	GB304	46	--

STUDENTS SHOULD ALSO CONSULT THE "SEATING LIST" POSTED OUTSIDE THE FACULTY OFFICE, GB157 OR THROUGH ECF BY OPENING THE FILE "ExamSeatingList" IN THE /usr/copy DIRECTORY. MISREADING THE TIMETABLE WILL NOT BE ACCEPTED AS A REASON FOR FAILING TO ATTEND AN EXAMINATION.

FINAL EXAMINATION SEATING LIST - FALL 1996



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One more review...

by Vera Kan CIV 979

Star Trek: First Contact



dramatic scenes in the film. Other great details about this movie include the Enterprise "E", appropriate humor and wit to move the plot along, and a look at the circumstances that jump-started the human race from Earth-bound existence to warp drives and the stars.

The writers of Star Trek: First Contact have done a great job weaving in the traditional Star Trek themes of self-improvement, altruism, idealism versus reality, and hope. Star Trek First Contact is definitely a flick that should not be missed.

Conjuring to its predecessor (Star Trek: Generations), ST: FC has a much stronger plot line. It is six years after Captain Jean-Luc Picard's (played by Patrick Stewart) experience with the Borg, that the crew appear again in an attempt to colonize the Earth. After a battle with the planet's alien inhabitants, the Enterprise follows the planet's alien inhabitants back to the past in the year 2063. This is the year that humans made the first contact with colonize-worthy beings, and the Borg is attempting to colonize Earth before the planet can develop sufficient technology to protect itself.

If anything can top a good Star Trek movie, it's going to see it on opening night. And so it was for Star Trek: First Contact. (Those of you who managed to get tickets to the show on Friday night at the Uptown Theatre will know what I meant.) If you couldn't or didn't get a ticket for opening night -- go see it anyway! We all need a study break every now and then, and this is why this movie is a worthwhile consideration for spending those spare few hours.

Cannon Poll Questions

Have you been a victim of theft at U of T?

yes ☐ no ☐

Do YOU think there are too few women in Engineering?

yes ☐ no ☐

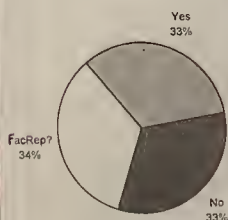
Gender: ☐

Please detach and leave in Cannon Box in Eng. Soc. or e-mail response to cannon@skule.ca.

The Cannon Poll

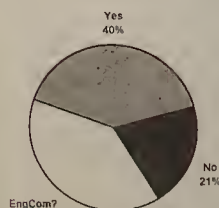
Here's what YOU think!

Do you think Faculty Reps should have kept their votes in Eng Soc?



Based on B2 responses

Should EngCom be freely accessible by everyone?



Based on B7 responses

When Marching Bnads and Policemen Fall In Line...



by Ryan Morris ELEC 9T9

Since the last Cannon issue, the Lady Godiva Memorial Bnad has been quite active around campus and in the Toronto area. The alumni were wowed by our performance at the annual Fall Alumni Reunion. The university's 10th annual U of T Day saw the Bnad leading the U of T parade around King's College Circle. On November 15th and 22nd, Pre-Flosh were left speechless when we crashed their lunch at New College. The Bnad was even on hand to entertain for the CIBC's presentation to the United Way on November 26th.

When local radio station Q-107's morning show guys Jesse and Gene had a street named after them, the Bnad was there. We won \$1007 for being the BEST MARCHING BAND! Of course the two guys with a drum were really no match for us.

The Bnad even got into the Christmas spirit on November 17th, when it barged into the Santa Claus parade. Just because our parade fell on the same day as their parade, they thought they could throw us out. (And they were right!) A special apology to Dave. Who knew the Mice would detain a Bnad member?

The Bnad was also involved in the recent downtown AIDs walk-a-thon. Those walkers will be always indebted to us for our entertainment value and our damn funny jokes. Finally, congratulations to the Div 1 rugby team, who owe their victory solely to the presence of the LGMB (not really) at their championship game against Law on November 16th. (They lost 8-3, but Law was disqualified, so they won 8-3).

The revelry continues into December, with their Vanier Cup at Skydome on November 30th (this is a big event, come on out and experience the tradition), and Lecture Crashing the following week. All engineering students are welcome: the only requirement is that you have a pulse, and that can be waived if you can blink twice in succession (once for yes, two for no). So keep checking that Bnad room door (SFB670) for more upcoming events and we'll see you there!



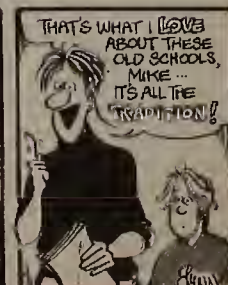
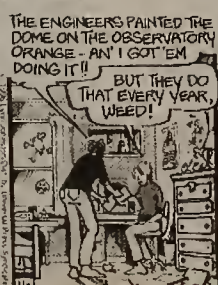
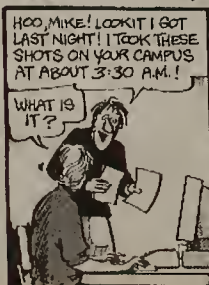
Engineers Wrestle MULOCK Cup from Erindale

by Gina Seta ENG SCI 9T9

Rugby, the game for all seasons, was played on the snowy wet fields of U of T on Saturday, November 23rd. Our very own hardened Division 1 champions stepped onto the field, prepared to trounce all over the winners of Division 2, Erindale. What they got was a run for their money, as the Erindale men fought val-

iantly for a place in MULOCK Cup history, but to no avail. The Engineers took the cup from their challengers, holding the title for the first time in four years. The last three years have awarded the Cup to Law, a trend that will be all but forgotten in the pending Cup championships should Engineering continue their dominance in rugby. Respect goes out to Sepand, for a spectacular dropkick.

For Better or For Worse by Lynn Johnston



Florish Suds
i.e. Flosh Olympics
was lost November 22nd with the jello-eating contest, the blowdorts, and a whole lot o' Flosh fun — Suds way!

